

Amendments to the Specification:

Please amend the specification as follows:

On page 1, after the title, (after line 2), please insert the following headings and paragraphs:

5 CROSS-REFERENCE TO RELATED APPLICATIONS

This application is the national phase, under 35 U.S.C. §371(c), of PCT/DK2005/000142, filed 1 March 2005, the disclosure of which is incorporated herein by reference.

10 FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable

BACKGROUND OF THE INVENTION

On page 1, after line 20, please insert the following heading:

15 SUMMARY OF THE INVENTION

Please replace the paragraph beginning at page 6, line 19 with the following rewritten paragraph:

20 Table 1 gives the criteria that should be met in order to keep the structure protected from corrosion. ~~[[the]]~~ The protection potential describes the maximum potential, i.e. in order to keep the structure from corroding, the potential should be kept more negative than the protection potential.

Please replace the paragraph beginning at page 7, line 16 with the following rewritten paragraph:

25 It is suggested that currents measured between the pipe and the hereto connected probe during a 24 hours period should be compared with current flowing in a well protected system without stray current. Accept criteria are based on time at bad condition and the degree of the bad condition. No direct corrosion rate is measured; however weight loss coupons can be used to further verify the well-functioning of the CP system or the degree to which corrosion occurs due to DC stray current interference. Weight loss coupons are coupons that are electrically coupled to the

pipe and exposed in the adjacent soil. [[The]] Each weight loss coupon is weighed before such exposure. After an adequate period of time (typically one year or more) the coupons [[is]] are excavated and brought to the laboratory for cleaning and weighing once again. The weight loss can be used to describe the corrosion. The procedure is rather time consuming and the corrosion condition cannot be detected during the period of exposure, i.e. one has to excavate, bring coupons to the lab and analyse before the result is evident.

Please replace the paragraph beginning at page 13, line 6 with the following rewritten paragraph:

It is an advantage of the present invention that the technique of diagnosing corrosion risk of a pipe or [[e]] a pipeline buried in soil due to DC stray currents and/or AC voltages induced in the soil may be carried out based on a simple combination of current and voltage measurements and calculating specific resistances in accordance with Ohms's Law for determining reproducible parameters readily combinable according to an empirical scheme for diagnosing the corrosion risk.

Please replace the paragraph beginning at page 14, line 16 with the following rewritten paragraph:

All data are saved in a ~~built-in~~ built-in data logging facility or transferred to a control ~~centre~~ center.

On page 17, after line 16, please insert the following heading:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 18, before line 1, please insert the following heading:

DETAILED DESCRIPTION OF THE INVENTION

Please replace the paragraph beginning at page 19, line 2 with the following rewritten paragraph:

The wires 28, 30, 32 may be constituted by wires having a diameter of 0.14 mm², alternatively a diameter of 0.25 mm². In the presently ~~perferred~~ preferred embodiment of the present invention, the cables are made from a material having a specific resistance of 0.01725 ohm x mm²/m. Hav-

ing a wire of the length of 30 m results in a total resistance of 7.4 ohm using a cable with a diameter of 0.14 mm² and 4.74 ohm using a wire having a diameter of 0.25 mm².

5

Please replace the paragraph beginning at page 22, line 4 with the following rewritten paragraph: During configuration of the system, the user/technician may choose in which condition the probes are placed and on which conditions the system should conduct the calculations and determine the state of the pipe. As indicated in the box 156, the probe may be a new probe 158 possibly placed above ground and the initial resistance data may be recorded. Alternatively, the probe may be exposed to the environment and the radio button 160 should be selected. The program then uses the initial resistance data collected when the system was first configured. If no initial resistance data is available, the radio button 162 may be chosen, and the ~~programme~~ program then ~~utilise~~ utilizes the factory data available from the prototype indication.

15

Please replace the paragraph beginning at page 25, line 20 with the following rewritten paragraph:

The Real Time Clock in the datalogger is ~~syneronized~~ synchronized with the PC clock when the sequence is downloaded to the logger.